

ABSTRACT

A layer configuration comprising a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, an adsorbed cationic spectral sensitizer and a coadsorber capable of enhancing the adsorption of a cationic spectral sensitizer on an n-type metal oxide semiconductor; and a process for preparing this layer configuration comprising the steps of: providing a layer of a nano-porous n-type metal oxide semiconductor with a band-gap of greater than 2.7 eV, adsorbing a coadsorber on the nano-porous n-type metal oxide semiconductor layer and adsorbing a cationic spectral sensitizer on the nano-porous n-type metal oxide semiconductor layer.